

Work Order ID 64152

PRELIMINARY ISSUE

Thursday, November 25, 2010 4:00:08 PM

Page 1

Item ID: D4298-017

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Clip Stop Mount

Start Date: 11/25/2010 Start Qty: 2.00



Cust Item ID:



Required Date: 12/3/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals:

Process Plan:

*[Signature]*

Date: 10-11-26

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4298	PAT DW A

100

0.00



FLOW WATER JET

0.00

Waterjet

Memo

FLOW CNC Waterjet

1-Cut as per Dwg  
Dwg Rev: *PA1*  
Prog Rev: *PA1*  
2-Deburr if necessary

10-11-29

③

110

0.00



QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Memo

Quality Control

10-11-29

120

0.00 - inspect to PERA Dwg.



QC8- Inspect parts - second check

0.00

QC

Memo

Quality Control

no Dart Dwg.  
8101ubg (x3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 64152

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Item ID:	D4298-017	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Clip Stop Mount					
Start Date:	11/25/2010	Start Qty:	2.00			
Required Date:	12/3/2010	Req'd Qty:	2.00			
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  Brake NC Brake NC	Bend as per dwg  Memo	0.00  0.00				(3)			
				SB 10/12/02					
140  QC Quality Control	QC6- Inspect dimensions to drawing  Memo	0.00  0.00							
				Inspector to ECU - 017 Dug. 8/10/12/02 (x3)					
150  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00							
				=> JH 10/12/02		X3	✓		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_








NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			




**NOTE:** Date & initial all entries

**Work Order ID 64152**

Thursday, November 25, 2010 4:00:08 PM

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Item ID:	D4298-017	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Clip Stop Mount					
Start Date:	11/25/2010	Start Qty: 2.00		Cust Item ID:		
Required Date:	12/3/2010	Req'd Qty: 2.00		Customer:		
Reference:						
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start
	QC:	Date:	SPC (Y/N):	Date:		Stop
						
						

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
155  Powdercoat Powder Coating	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3 <i>M112588</i> Memo POWDER COAT: Start Time: <i>3:40</i> Oven Temperature: <i>320°</i> Finish Time: <i>4:10</i>	0.00  0.00				<i>3</i>		<i>BL 10-12-6.</i>	
160  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00		<i>Sn 10/12/15</i>		<i>(3)</i>			
170  Packaging Packaging	Identify as per dwg & Stock Location: <i>ENG.</i>  Memo	0.00  0.00		<i>Sn 10/12/15</i>		<i>(3)</i>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



**NOTE:** Date & initial all entries


**Work Order ID 64152**

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Thursday, November 25, 2010 4:00:08 PM



Item ID: D4298-017 Accept  Setup Start   
Revision ID: PRELIM Stop   
Item Name: Clip Stop Mount  
Start Date: 11/25/2010 Start Qty: 2.00  Cust Item ID:  
Required Date: 12/3/2010 Req'd Qty: 2.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 	QC21- Final Inspection - Work Order Release	0.00							
QC Quality Control	Memo	0.00							

✓ MF  
10-12-13

POSITIVE RECALL

EFFECTIVE 10.11.29 AUTH. RELEASED  DATE 10.12.17

Qty 2.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes (No) DQA: / Date: 10-12-17

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10-12-17	100	ERA RUC Flat pattern revised to match hole spacing dimensions.  R.C. 3rd party design.	<u>/</u> BS1042	parts are bent & only the 0.13 dims can be checked. Per ASS'Y new dims are good	N/A <u>/</u>	<u>/</u> 10-12-17	<u>/</u> BS1042	<u>/</u> 10-12-17

NOTE: Date & initial all entries



# Picklist Print

Page 1

Thursday, November 25, 2010 4:00:13 PM

Work Order ID: 64152

Parent Item: D4298-017

Parent Item Name: Clip Stop Mount

Start Date: 11/25/2010

Required Date: 12/3/2010

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP rev:A 10.11.24 new issue DD Verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6S.063

Purchased

No

100

sf

41.2340

0.004

0.008421



10-11-29

6061-T6 .063 Sheet

Location

Loc Qty

Loc Code

MAT21

41.234

113608

41.234

113608

(3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD	Work Order: 64152
Description: Clip Stop Mount	Part Number: D498-17
Inspection Dwg. D498-17, Rev: RA1	Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

**X**

## First Article

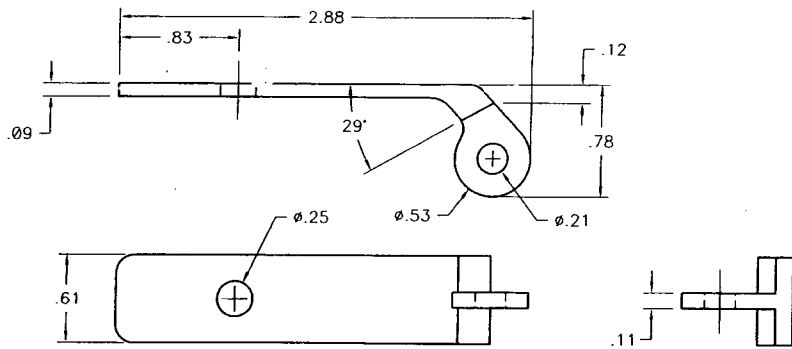
**x**

## Prototype

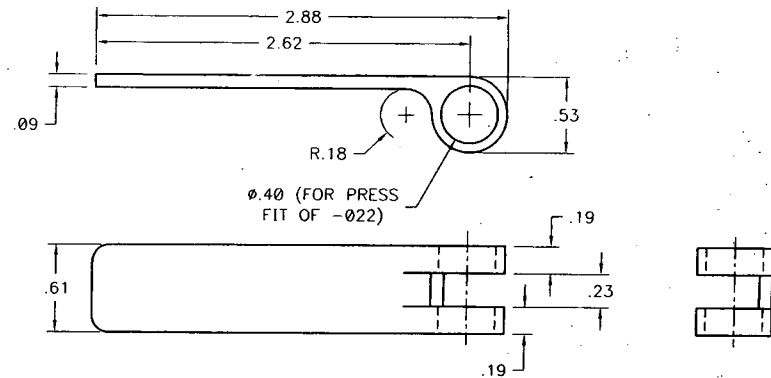
[illegible]

Measured by: <u>B</u>	Audited by: <u>S</u>	Prototype Approval:
Date: <u>10-11-29</u>	Date: <u>10/11/29</u>	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



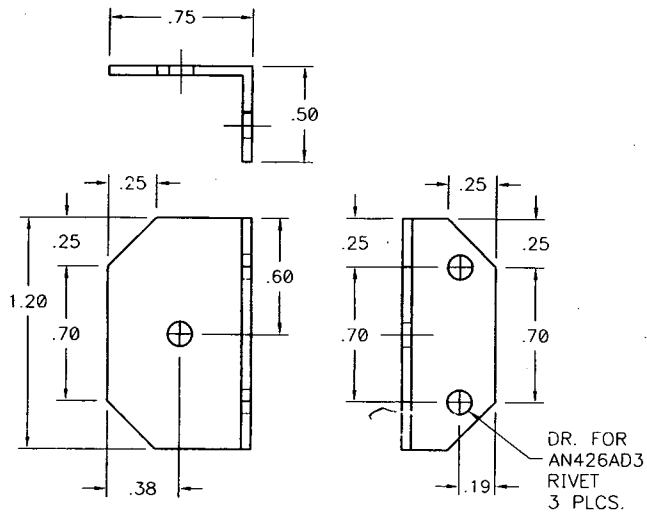
-013 HINGE



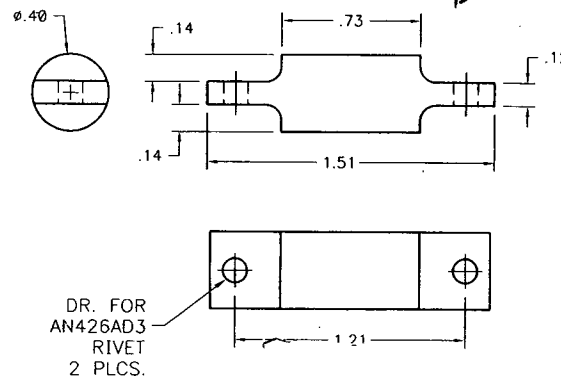
-014 HINGE

SHOP COPY  
RETURN TO  
ENGINEERING

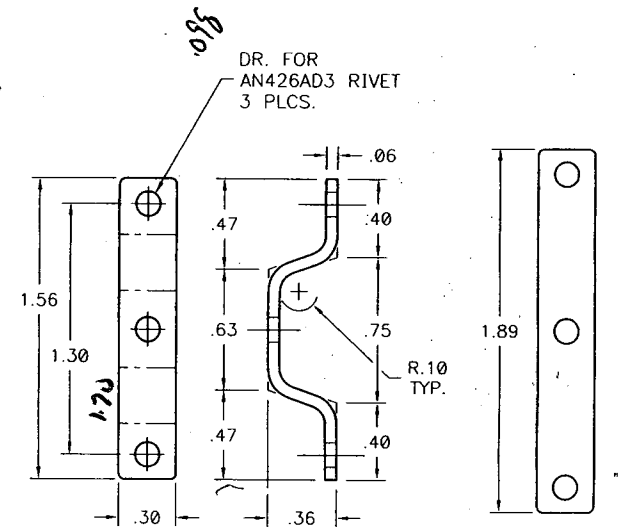
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 44152 *08-10-11-26*



-015 CLIP ANGLE



-016 CLIP STOP



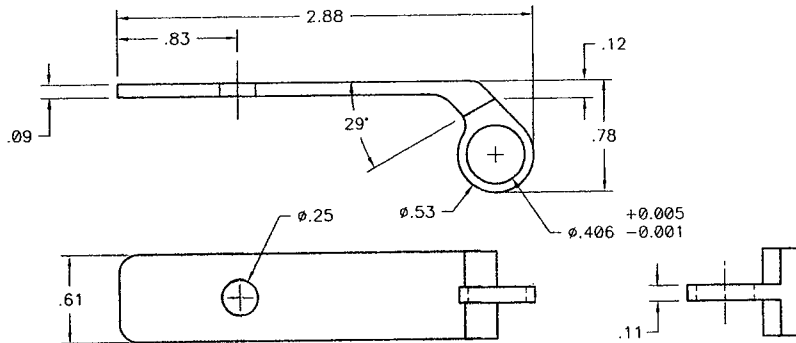
-017 CLIP STOP MOUNT

DART P/N	ERA P/N	Description
D4298-001	13939-1-290-001	CHART HOLDER ASSY
D4298-002	13939-1-290-002	PLATE SUB-ASSY
D4298-003	13939-1-290-003	PLATE SUB-ASSY
D4298-004	13939-1-290-004	FIXING BRACKET SUB-ASSY
D4298-005	13939-1-290-005	HINGE SUB-ASSY
D4298-006	13939-1-290-006	MACHINED INNER SUB-ASSY
D4298-007	13939-1-290-007	MACHINED OUTER SUB-ASSY
D4298-008	13939-1-290-008	PLATE
D4298-009	13939-1-290-009	PLATE
D4298-010	13939-1-290-010	FIXING BRACKET
D4298-011	13939-1-290-011	HINGE
D4298-012	13939-1-290-012	HINGE
D4298-013	13939-1-290-013	HINGE
D4298-014	13939-1-290-014	HINGE
D4298-015	13939-1-290-015	CLIP ANGLE
D4298-016	13939-1-290-016	CLIP STOP
D4298-017	13939-1-290-017	CLIP STOP MOUNT
D4298-018	13939-1-290-018	MACHINED INNER
D4298-019	13939-1-290-019	MACHINED OUTER
D4298-020	13939-1-290-020	KNOB
D4298-021	13939-1-290-021	MACHINE BOLT
D4298-022	13939-1-290-022	PIN TOPPER
D4298-023	13939-1-290-023	PIN
D4298-024	13939-1-290-024	SERRATED ADJUSTMENT WASHER

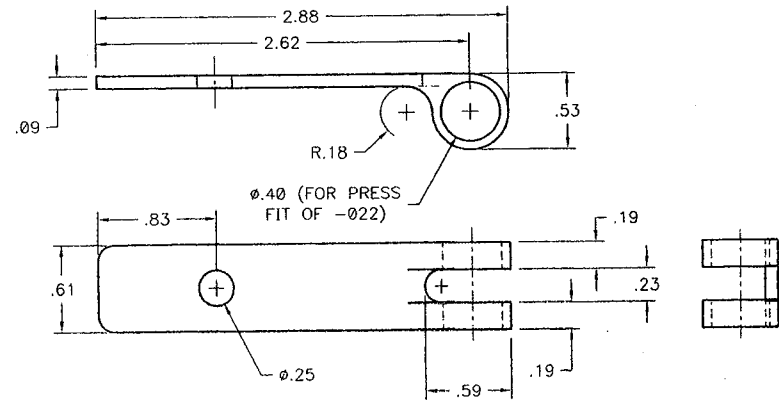
**RELEASED**  
2010-12-15  
*W*

A	NEW ISSUE	SC	10.12.15
REV.	DESCRIPTION		BY DATE
DESIGN	SC	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	<i>W</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>W</i>	D4298	SHEET 1 OF 1
APPROVED	<i>W</i>	TITLE	SCALE
DE APPR.	<i>W</i>	CHART HOLDER (AW 139)	NTS
DATE	10.12.15	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

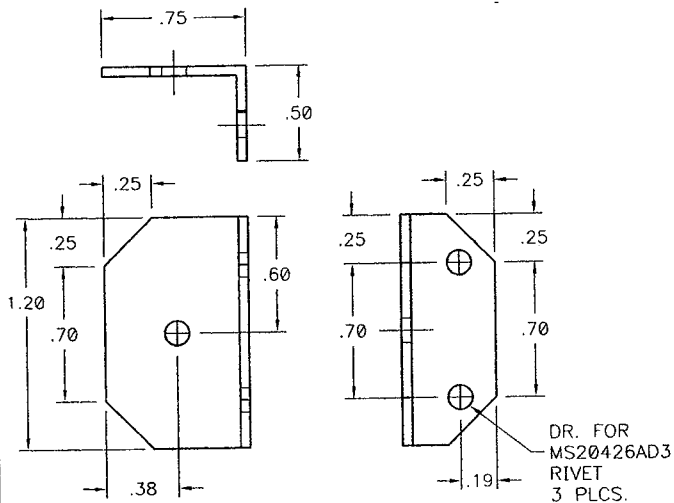




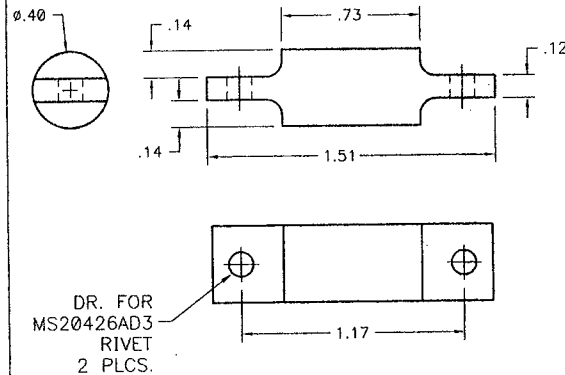
-013 HINGE



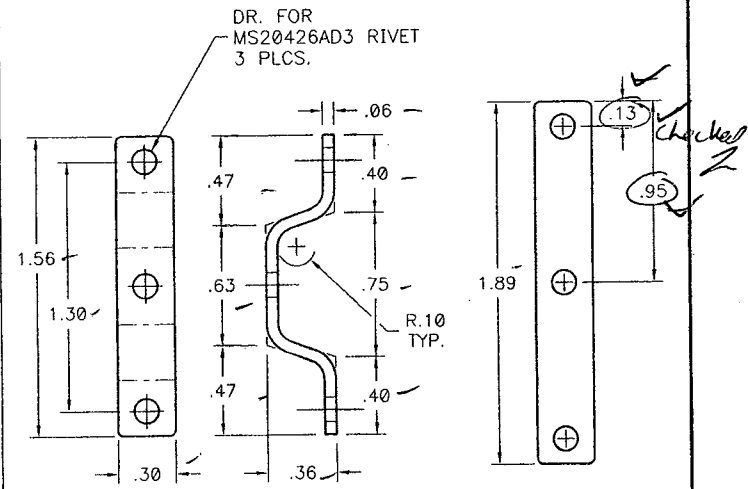
-014 HINGE



-015 CLIP ANGLE



-016 CLIP STOP



-017 CLIP STOP MOUNT

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Era Helicopters LLC

TITLE	SIZE	DWG. NO.	REV.
SINGLE PILOT VFR		13939-1-290	D

## Eric Charbonneau

---

**From:** Domingue, Elvin [edomingue@erahelicopters.com]  
**Sent:** November 24, 2010 1:48 PM  
**To:** Nelson, David; 'echarbonneau@dartaero.com'  
**Subject:** Re: DXF files (AW139 Chart Holder)

Yes that would be perfect!

Elvin Domingue  
Sent from my BlackBerry Wireless Device

---

**From:** Nelson, David  
**To:** 'Eric Charbonneau' <[echarbonneau@dartaero.com](mailto:echarbonneau@dartaero.com)>  
**Cc:** Domingue, Elvin  
**Sent:** Wed Nov 24 12:37:04 2010  
**Subject:** RE: DXF files (AW139 Chart Holder)  
Eric,

That sounds okay to me, but I'll fwd to Elvin Domingue on this.

Elvin, does this finish sound okay for the AW139 Chart Holder?

Thanks,  
David

---

**From:** Eric Charbonneau [<mailto:echarbonneau@dartaero.com>]  
**Sent:** Wednesday, November 24, 2010 12:10 PM  
**To:** Nelson, David  
**Subject:** RE: DXF files

Thanks David, at the same time would you know what kind of finish is required on the assembly, most of our interior parts we alodine and then powder coat black sandtex, this black is satin and prevent any glare. If this is what you would like please let me know, or fwd this to whoever can help me out with this.

Thank,  
Eric

**From:** Nelson, David [<mailto:dnelson@erahelicopters.com>]  
**Sent:** November 24, 2010 11:53 AM  
**To:** 'Eric Charbonneau'  
**Subject:** RE: DXF files

Here you go.

Thanks,  
David

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**From:** Eric Charbonneau [<mailto:echarbonneau@dartaero.com>]  
**Sent:** Wednesday, November 24, 2010 10:11 AM